CLAIMS

1.   1. A method of operating a switch for frames in a computer network, comprising:

receiving a frame (the received frame) at a port of said switch, said received frame containing one or more indicia of frame type designation;

deriving a virtual local area network (derived VLAN) value in response to said one or more indicia of frame type designation;

accessing a forwarding data base with said derived VLAN value to determine a destination address; and,

forwarding, in response to said derived VLAN value, said received frame to an output port for transmission to the destination.

2.   The method of claim 1 further comprising, said forwarding step forwarding in response to said derived VLAN value and said destination.

3.   The method of claim 1 wherein said indicia of frame type designation further comprises: a protocol type.

4.   The method of claim 1 wherein said indicia of frame type designation further comprises: a subnet value.

5.   The method of claim 1 wherein said indicia of frame type designation further comprises: a virtual local area network established in said computer network.

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6.   The method of claim 1 wherein said indicia of frame type designation further comprises: an IP source address.

7.   The method of claim 1 wherein said indicia of frame type designation further comprises: an index value associated with a port at which said received frame was received.

8.   The method of claim 1 further comprising:
deriving a MAC address from said derived VLAN value and forwarding said received frame to a port for transmission to a destination having said MAC address.

9.   A switch to forward frames in a computer network, comprising:

a port to receive a frame (the received frame), said received frame containing one or more indicia of frame type designation;

a parsing engine to derive a virtual local area network (derived VLAN) value in response to said one or more indicia of frame type designation;

a forwarding data base having said derived VLAN value as input and a destination address as output; and,

an output port to transmit said received frame, in response to said derived VLAN value, for transmission to said destination address.

10.   The apparatus as in claim 9 further comprising:

a forwarding engine for forwarding said received frame in response to said derived VLAN value and said destination address.

11.   A computer readable media containing instructions for the practice of the method of claim 1.

12.   Electromagnetic signals travelling on a computer network, said electromagnetic signals carrying information to practice the method of claim 1.

13.   A method of operating a switch for frames in a computer network comprising:

using one or more indicia of frame type designation found in the received frame to derive a virtual local area network (derived VLAN) value;

using the derived VLAN value in making forwarding decisions.

14.   The method of claim 13 further comprising:
controlling broadcast domains in the computer network by forwarding in response to the derived VLAN value.

15.   The method of claim 13 further comprising:
using an indicia of the receiving port in constructing the derived VLAN value.

16.   A computer readable media containing instructions for the practice of the method of claim 13.

17.   Electromagnetic signals travelling on a computer network, said electromagnetic signals carrying information to practice the method of claim 13.